EFFECT OF STOCK MARKET DEVELOPMENT ON FOREIGN DIRECT INVESTMENT INFLOWS IN KENYA

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REG. NO.: D63/35032/2019

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN FINANCE, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

OCTOBER, 2023

DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

Signed:  Date: _____30/10/2023_____

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This research project has been submitted for examination with my approval as the University Supervisors.

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ACKNOWLEDGEMENT

This project was completed successfully through the support from different persons to who I am greatly indebted. I give honor and glory to the Almighty God for it is by His grace that I was in a position to pursue and complete my studies.

In particular, I am profoundly grateful to Prof. Josiah Aduda, my supervisor for modelling this research, his availability, consistency and guidance as well as insightful reviews and encouragement. I am also thankful to my family and colleagues for their irreplaceable support, understanding and encouragement

DEDICATION

I dedicate this work to my wife Eunice Wambui and my parents, Peter and Teresiah Kihara, for believing in me and their relentless support and inspirational encouragement. Your prayers brought me this far. To my children Lionel, Miguel and Jasmine Njogo who has been affected in every way possible in this quest. Thank you and God bless you.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
ARDL	Auto Regressive Distributed Lag
CBK	Central Bank of Kenya
FDI	Foreign Direct Investments
GDP	Gross Domestic Product
IMF	International Monetary Fund
KNBS	Kenya National Bureau of Standards
NEG	New Economic Geography
OECD	Organization for Economic and Cooperation Development
OLS	Ordinary Least Squares
SDG	Sustainable Development Goals
SPSS	Statistical Package for the Social Sciences
SSA	Sub-Saharan Africa
UNCTAD	United Nations Conference on Trade and Development
VIF	Variance Inflation Factors

ABSTRACT

The capital markets in Kenya play a crucial role in economic growth and especially towards achievement of Vision 2030. However, the stock market development measure, private credit to GDP (%), for Kenya has been below the low and medium-income countries average for the period between 1964 and 2022. At the same time, Kenya has seen multinational corporations with well-developed countries leaving operations in unpredictable situations and this has adversely affected FDI inflows into the region. The primary objective of this study is to assess the influence of stock market development on FDI inflows in Kenya over a ten-year period, from 2013 to 2022. Additionally, the study aims to examine the correlations between FDI and other control variables, including interest rate, inflation rate, and economic growth. This study was anchored on internalization theory and supported by monopolistic advantage theory and eclectic paradigm framework. This research utilizes quantitative analysis, including correlation analysis and regression modeling, to assess the relationships among the variables. The study employs quarterly data for a ten-year period to provide a comprehensive overview of the dynamics in Kenya's FDI landscape. The study reveals a significant positive correlation between stock market development and FDI inflows in Kenya, suggesting that a well-developed stock market can attract foreign investors. Furthermore, economic growth emerged as another significant predictor of FDI, emphasizing the importance of fostering a robust and growing economy to attract foreign investment. However, interest rates and inflation rates did not exhibit significant correlations with FDI inflows during the study period. The study concludes that stock market development and economic growth are crucial drivers of FDI inflows in Kenya. Policymakers are urged to prioritize initiatives that promote stock market development, sustainable economic growth, and an investment-friendly climate to enhance Kenya's appeal as an investment destination. To attract and retain foreign direct investment effectively, Kenyan authorities should focus on fostering stock market development, promoting sustainable economic growth, enhancing the overall investment climate, and diversifying investment promotion efforts. Future research could expand the temporal scope, incorporate qualitative analysis, delve into sector-specific FDI dynamics, consider the global context, and evaluate policy effectiveness to provide a more comprehensive understanding of FDI in Kenya and guide policymakers and investors effectively.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The necessity of Foreign Direct Investments (FDI) to speed up real sector growth is well recognized by researchers and policymakers. Many researchers found that to gain real benefit from FDI can be gained when the financial system of a country is developed (Mahmood, Furqan, & Bagais, 2018). Some others find capital market development as a precondition for the host country to gain on the technological diffusion associated with economic growth for economic growth (Islam, Liu, Khan, Islam, & Sultanuzzaman, 2021). Given all the benefits and growth opportunities of stock market development and FDIs to the real sector economy, these two factors (stock market development and FDI) can induce each other, which can further stimulate the speed of the economy (Islam, Hossain, Khan, Hasan & Hassan, 2021).

This study was anchored on internalization theory by Casson and Buckley (1976) which recognizes the existence of certain factors in the host nation which establishes if foreign direct investment inflows are present or not. The current study used the theory to establish whether stock market development is one of these factors. Other supporting theories include monopolistic advantage theory by Hymer (1960) which proposes that imperfect competition in the production factor market is the fundamental cause of FDI. Dunning (1979), eclectic paradigm framework combines various factors to explain FDI. It argues that FDI is determined by three main factors: ownership advantages, location advantages, and internalization advantages.

A report by the World Bank (2020) shows Kenya's financial sector has grown significantly in size and complexity thus boosting overall economic growth to a great extent. This shows that Kenya is making remarkable progress in increasing stock

market development. FDI has been on the decline since independence, this is pronounced in key employment creation sectors such as agricultural sector (9.3% decrease), Business services sector, (15.6% decline) as well as manufacturing sector (7.8% decline) (Kinyanjui, Muturi & Njeru, 2018). The major challenge facing the government today is how to stimulate FDI so as to attain the desired level of economic growth that is useful in achievement of sustainable development goals (SDGs), poverty reduction, vision 2030 and the Big Four Agendas. This study therefore offers a suitable guide to policymakers on the effect of stock market development on FDI.

1.1.1 Stock Market Development

A capital market is a financial market that buys and sells debt and equity securities (World Bank, 2019). These markets transfer money from savers to long-term users who will put the money to good use. Capital market development, as per Roubini and Bilodeau (2018), can be characterized as enabling infrastructure components, institutions, and regulations that result in broad and deep access to financial services and capital, as well as operative financial intermediation. Mehrotra and Yetman (2015) defined capital market development as the enhancement of financial services that are tailored to all the levels in the society thus increasing the availability and accessibility of the financial services in an economy. Capital market development is a vital segment of financial sector development since it complements the banking sector's role in economic development (Singh, 2014).

Capital markets, according to Liu (2001), are crucial in provision of market liquidity which is essential in the implementation of projects with longer time frames and therefore long-term profits hence promoting the growth of an economy. Capital markets help to reduce data costs by generating and distributing data on companies that lead to

efficient and effective markets where prices include all current data. Additionally, capital markets enable investors to access resources and they also facilitate injection of foreign financial resources into the economy (Adan, 2017).

Capital markets development has been measured using a number of variables. Robinson (2016) used the return on stock and the change in market prices to assess capital market development in India. Makau (2015) utilized the capitalization rate as a proxy for stock market development in his study. Changes in stock market prices and return on stock were employed as metrics of capital market development in research by Imala (2015) on the effect of macroeconomic variables on capital market development in Nigeria. The current study measured capital markets development using stock market capitalization divided by GDP.

1.1.2 Foreign Direct Investment Inflows

Foreign direct investment is a type of cross-border investment made by someone who lives in one country with the intention of acquiring a long-term stake in a company that is located in a different country (OECD, 2008). The share acquisition by a company in a multinational that surpasses a 10% threshold, indicating managerial presence in the foreign enterprise, is another definition of FDI (Goldin & Reinert, 2007). FDI has been defined by the International Monetary Fund (IMF) (1993) as an investment intended to obtain profit by the firms operating in different countries from the investor. The current study defines FDI as the establishment of a lasting interest by foreign firms in Kenya.

FDI is a crucial element for supporting growth of an economy, as a result of this; capital deficient economies suffer from low realized FDI due to scarce local resources. FDI plays the role of creating employment and thus increasing local income, which then leads to stimulation of local aggregate demand. An increase in local aggregate demand

impacts significantly aggregate production output via a multiplier process. Further to that, an increase in investments can also enhance the economy's productive capacity, and thereby boost the available capital stock and enhance economic growth of a country (Ali, 2014). Lack of capital thus inhibits the achievement of important goals of economic development like alleviation of poverty, equal wealth distribution and increased employment levels; a feat only achievable through sustained levels of FDI that enhance growth (Chorn & Siek, 2017).

Previous researchers have operationalized Foreign Direct Investment in different ways. Xgedu (2013) has summarized FDI into four main categories including horizontal FDI, vertical FDI, green field business, and transnational mergers & acquisitions. Mowlaei (2018) operationalized FDI as an aggregate of the various types of FDIs. Lozi and Shakatreh (2019) measured FDI as the total value of FDI inflows going into a specified country on an annual basis. The current study adopted this definition and therefore measured FDI as the natural logarithm of the total value of FDI inflows into Kenya in a given quarter.

1.1.3 Stock Market Development and Foreign Direct Investments in Kenya

Kenya's financial sector has grown significantly in terms of both complexity and size thus boosting the overall economic growth to a great extent. The sector constitutes mainly insurance, banking, capital markets, savings and credit cooperatives as well as pensions. Money remittances companies, Foreign exchange bureaus, finance development institutions and Microfinance institutions are other major players. Resolution organizations and safety nets also exist to incorporate the compensation funds for; the policyholders of the insurance industry, the Kenya deposits insurance as

well as the commercial microfinance bank. Capital markets incorporate the investor compensation fund (World Bank, 2021).

In regards to FDI inflows, Kenya has a long-standing rich past, with multinational companies since the 1960s. Kenya has long been known as an enticing location for foreign investors to invest in East and Central Africa. In Kenya a host of multinationals, such as Proctor and Gamble, General Motors, Microsoft, Google, Coca-Cola Citibank, Ogilvy and Mather, still act as the East African market center of choice. Foreign investment accounts for approximately 51 percent of the country's total banking assets (CBK, 2020). Thanks to its integration with global hubs and its trained and skilled staff, fiscal benefits, advanced financial structures, built infrastructure and regional trade strategic memberships and cooperation agreements, Kenya is considered a productive hub for the region (World Bank, 2019).

Notably, Kenya’s foreign direct investments have continued to perform below expectations (Gitonga, 2017). According to Wekesa et al. (2016), if the government is to attain the anticipated 10% economic growth by attracting the required level of FDI it means that it must put in place an enabling environment through enacting appropriate macroeconomic policies. To do this however it is important to know which of the determinants play the bigger role in enticing foreign direct investment and maintaining them at the desired level for best results, hence the need for this study.

1.2 Research Problem

Stock market development in a host country attracts Foreign Direct Investments (FDI) inflows because a financially developed country is generally viewed as an attractive investment destination for international capital by foreign investors (Appiah, Gyamfi, Adebayo & Bekun, 2022). Further, a financially developed system enhances FDI

utilization by reducing information asymmetry and the costs associated with conducting transactions and acquiring information for foreign investors (Siddikee & Rahman, 2021). A financially developed economy enables a host country to meet its domestic investment requirement and also enhance its productive capacity. The presence of a financially developed system provides information to a host country on a developing foreign exchange gap, and facilitates the flow and utilization of international resources (Acheampong, 2019).

The capital markets in Kenya play a crucial role in economic growth and especially towards achievement of Vision 2030. However, the stock market development measure, private credit to GDP (%), for Kenya has been below the low and medium-income countries average for the period 1964-2020 (Word Bank, 2021). At the same time, Kenya has seen multinational corporations with well-developed countries leaving operations in unpredictable situations and this has adversely affected FDI inflows into the region. Some of the companies that have shifted their operations from Kenya include Eveready East Africa which shut down its Nakuru factory for importing batteries from its Egyptian branch after strong competition from cheap illegally imported goods and Cadbury Kenya which declared it a halt on the Kenyan market. Bridgestone, Reckitt Benckiser, and Colgate Palmolive are other firms which have meanwhile exited Kenya in alternative markets (UNCTAD, 2018). Experts have linked these exits to macro-economic factors and this analysis would aim to examine if stock market development which is part of the macro environment affects FDI inflows.

Globally, studies have focused on stock market development and FDI relationships with mixed findings. Islam et al. (2021) review literature to find how financial development attracts foreign direct investments for a sustainable real sector development of a

country. This study presents a methodological gap as it was a review of literature and therefore lacks empiricism. Mbratana, Fotié and Amba, (2021) focused on assessing the direct causality between FDI and stock market development for 47 African countries. The study presents a contextual gap as it was not country specific. Anetor (2020) investigated the effect of foreign capital inflows and stock market development on Nigeria's economic growth, between the periods 1986- 2016. The study did not review the effect of stock market development on FDI inflows hence a conceptual gap.

Locally, the available research has mostly focused on other determinants of foreign direct investments without addressing stock market development. Other studies have concentrated on the impact of FDI on economic growth. Gutola and Milos (2022) aims at evaluating the impact of foreign direct investment on the economic growth of Kenya. The study reveals a conceptual gap as the effect of stock market development on FDI was not established. Ogero, Obere and Odada (2021) pursued to establish macroeconomic variables effect on FDI inflows in Kenya. Economic growth and exchange rates are significant in influencing the level of FDI but stock market development was not taken into account. Odidi and Jagongo (2020) aim at establishing the moderating effect of inflation on the relationship between foreign direct investment, financial market development and economic growth in Kenya. The study presents a conceptual gap as the direct effect of stock market development on FDI inflows was not established.

This study was motivated by the low stock market development in Kenya compared to other medium income countries and the reducing levels of FDI inflows. Although there are previous studies in this area, there exist conceptual, contextual and methodological gaps. Conceptually, most studies provide conflicting findings with some oscillating

from negative to positive and others indicating no relationship at all. Methodologically, the researchers used various approaches and were conducted in various circumstances, making it challenging to generalize the results to one specific context. Additionally, the available studies have not documented the interactions among stock market development and FDI in Kenya therefore leaving a contextual gap. This led to the research question: What is the effect of stock market development on foreign direct investments in Kenya?

1.3 Research Objective

The objective of this study was to establish the effect of stock market development on foreign direct investments in Kenya.

1.4 Value of the Study

This study's results will contribute to the existing theoretical as well as empirical literature on stock market development and foreign direct investments. The findings will also help in theory development as they will offer insights on the shortcomings and relevance of the current theories to the variables of the study. On the basis of the advice and ideas for additional research, additional investigations may also be conducted.

The findings of this research will be crucial for practitioners like portfolio managers and private equity managers who engage in global investing. The study will assist these supply-side managers in deciding where to deploy capital into foreign economies that would maximize their expected return on investments. It would also help them in singling out foreign markets that possess underlying characteristics that enable a conducive environment for international capital to thrive and easily repatriate back profits.

The research will also be helpful to organizations that make policy, such as governments, capital markets, central banks, and economic bodies that create varied stock market development and FDI policies. The study's recommendations may also be used by the decision-making organizations to develop efficient stock market development tactics that will increase FDI.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the theories that form the basis for stock market development and foreign direct investments. It also reviews the prior empirical research, identifies knowledge gaps, and a conceptual framework and hypotheses illustrating the anticipated link between the variables under consideration.

2.2 Theoretical Framework

This section studies the theories that back the study of stock market development and FDI. The study reviewed the internalization theory, monopolistic advantage theory and eclectic paradigm theory.

2.2.1 Internalization Theory

This is the anchor theory of the current study and it was developed by Casson and Buckley in 1976. Hennart (1982) additionally evolved the theory and learned from subsequent studies by Casson (1983). The theory outlines the development and inspiration of multinationals. It reveals that multinational companies plan their internal operations in order to obtain unique advantages and leverage them to improve their productivity. According to Hymer (1960), FDI can only occur where the utilization of a firm-specific benefit supersedes the marginal cost of foreign investment. In short, he suggests that FDI happens in unstable markets, and it is actually a firm-level policy judgment as opposed to a capital-market financial decision.

Casson and Buckley (1976) claim that an FDI is desirable only if the requirements of possession, place, and internalization are satisfied. Firstly, the company would have a competitive edge over the ownership of the local business. This could be in the context

of the corporate or technical expertise unique to the multinational. Government regulations that are likely to change the advantages of investment in a given host country are also important. In some situations, the host government can lay down rules on the existence of foreign ownership. In addition, such constraints limit the inward FDI inflows that would be followed by technology. Second, manufacturing in the home country would be beneficial for multinationals as well as other buyers if they can take advantage of any competitive locational advantage. Instead of renting or purchasing from other businesses, it should be appropriate to carry out the operations within the host countries.

Dragoi (2019) critiques the theory because it unrealistically assumes rationality of investors and frictionless markets where investors have all the required information. The theory also ignores the technology's contribution to growth. The theory has over the years further been developed to accommodate an open economy, but however still attributes the inability of an economy to develop squarely on its failure to save and accumulate capital. This theory is pertinent to the present research because it recognizes that there are some elements in the host nation that affect whether or not there will be inflows of FDI. The goal of this research is to assess whether stock market development is a factor in FDI inflows.

2.2.2 Monopolistic Advantage Theory

This theory was pioneered by Hymer (1960) and postulates that monopolistic advantages of the enterprises come from the incomplete advantages of the product market and the factor market, which trusts the firms, can gain and keep various monopolistic advantages in FDI to get higher profits than local companies due to the existence of imperfect competition. Advantages of management skills and economies

of scale leads to low-cost operating advantages (Gillen & Lall, 2004). The monopolistic advantage theory has built the basement for the later study and development of FDI.

Pei and Zheng (2011) argue that the advantage of the enterprises comes from both domestic regions and overseas areas. Active intervention in the home country's industrial organization and policy incentives can enhance the international competitive capability. Industrial advantage, scale advantage, home country's national image and cultural advantage promote the domestic enterprise's advantage. In this sense, the national image consists of the important elements to build the monopolistic advantage of the motherland, which will lead the country to focus more on shaping the national image.

The theory has been critiqued as it does not describe the benefit a firm should focus on since apart from monopolistic advantages (Nayak & Choudhury, 2014). The monopolistic advantage theory is applied in this study because it not only opens up the research field of international direct investment, but also breaks through the analysis model of FDI from the perspective of capital flow and proposes that imperfect competition in the production factor market is the fundamental cause of FDI. Monopolistic advantages possessed by multinational companies generally have technological advantages, fundraising advantages, economies of scale advantages, management advantages, and monopolistic advantages resulting from incomplete product markets.

2.2.3 Eclectic Paradigm Theory

This theoretical framework was pioneered by Dunning (1979). It posits that FDI is driven by three main factors: ownership advantages, location advantages, and internalization advantages. Ownership advantages refer to the firm-specific assets or

advantages that enable a company to compete internationally. Location advantages encompass factors such as market size, resources, infrastructure, and government policies that make a particular country an attractive destination for investment. Internalization advantages emphasize the benefits of coordinating and controlling activities within a single firm rather than relying on external market transactions (Devereux, Maffini & Xing, 2015).

However, the OLI framework has faced criticisms. Some argue that it oversimplifies the complex decision-making process behind FDI and neglects the influence of institutional factors and the dynamic nature of FDI determinants (Venables, 2005). The framework also places less emphasis on the influence of institutional factors such as political and legal environments, cultural differences, and social norms, which are crucial in shaping FDI decisions, and tends to focus on static determinants of FDI, not accounting for how these determinants may evolve over time or in response to changes in the global economic landscape (OECD, 2008).

Despite these criticisms, the OLI framework remains relevant in understanding the relationship between stock market development and FDI. While it does not explicitly address this relationship, the framework acknowledges that FDI decisions are influenced by location advantages, which can include factors related to stock market development. A well-developed stock market can provide benefits such as liquidity, access to capital, transparency, and information dissemination, which may attract FDI. Moreover, stock market development often serves as an indicator of a country's overall economic and institutional development, which can influence firms' decisions to invest in that country.

2.3 Determinants of Foreign Direct Investments

Foreign direct investment inflows in a given nation are predisposed by several factors. Some of the factors that have been identified in previous literature as determiners of FDI inflows include stock market development, economic growth, inflation and interest rates prevailing in a given country.

2.3.1 Stock Market Development

Stock market development in a host country attracts Foreign Direct Investments (FDI) inflows because a financially developed country is generally viewed as an attractive investment destination for international capital by foreign investors (Appiah et al., 2022). Further, a financially developed system enhances FDI utilization by reducing information asymmetry and the costs associated with conducting transactions and acquiring information for foreign investors (Siddikee & Rahman, 2021). A financially developed economy enables a host country to meet its domestic investment requirement and also enhance its productive capacity. The presence of a financially developed system provides information to a host country on a developing foreign exchange gap, and facilitates the flow and utilization of international resources (Acheampong, 2019).

The indicators of a host country having a developed financial system are signals of validity, trade openness and market trustworthiness. Likewise, from an investor's perspective, a financial system is having an efficient allocation of financial resources to the promising sectors (Hajilee & Al Nasser, 2015), prompt financial mediators and supply chain. In addition to the money market, the capital market plays a point of attraction to foreign investors. Because multinational firms regularly buy and sell their stocks in the host country to expand their business operations (Hanif & Shariff, 2016).

2.3.2 Interest Rates

Interest rate greatly affects the pricing of goods and services both regionally and abroad. Money supply in the economy can greatly affect the levels of interest. For instance, when there is plenty of money in the economy, the interest rates are more likely to reduce and this will affect how a firm performs in the market. This will subsequently boost the market which will become more attractive for foreigners in the country (Barksenius & Rundell, 2012).

Interest rates determine the progress of the economy. According to Barnor (2014), a sudden change in interest rates has an effect on investors' choices about their investments. As a result, investors often change the type of savings they have, switching from the capital market to fixed profit instruments. Rendering to Khan and Sattar (2014), depending on the movement, the influence of the interest rate on FDI might be either positive or negative. A reduction in deposit interest rates and a rise in consumption discourage savings.

2.3.3 Inflation Rate

Rates of inflation can affect the economy of a country substantially. For instance, during times of price movements and increments, prices of property will increase. Therefore, when inflation in an economy rises, the general cost of goods is likely to increase. This will subsequently affect how firms perform financially. Therefore, many investors who engage in sale of goods and services in the market usually include an allowance for inflation (Biller, 2007).

Higher rates of inflation will translate to prices being higher for consumers slowing down business and thus reduce firms' earnings. Prices that are high also trigger a regime that has a higher interest rate (Hendry, 2016). According to Fama (1998), inflation is

likely to be negatively associated with real economic activity, and as a result likely to be positively related to market performance. Thus, growth ought to be associated negatively with the expected price level, with interest rates at the short-term representing the international fisher effect.

2.3.4 Economic Growth

Economic growth is viewed as an important overall measure of an economy's well-being. It is thus used to track the overall economic growth trend of an economy over time and can thus be used to track the effectiveness of economic policies instigated with an aim of enhancing growth overtime. Achieved positive economic growth may help in the realization of various macro-economic objectives that include poverty reduction, increased employment, public services improvement and reduced debt balances to GDP ratios (Phimmarong & Kinnalone, 2017).

Economists have often recognized that capital is a key component of enhancing economic growth, via its deployment to productive investments. Capital is thus required for both public and private sector investments that enhance local economic growth. Public investments include infrastructure projects that support and stimulate growth, along with employment creating public projects that reduce poverty by increasing incomes and thereby raising standards of living. The private sector requires capital for such needs like supplementing production resources and expanding business activity (Onyinye, Orji, Jonathan & Emmanuel, 2018).

2.4 Empirical Review

Locally and globally studies have established the link amongst stock market development and foreign direct investments, the objectives, methodology and outcomes of these studies are discussed.

2.4.1 Global Studies

Islam et al. (2021) review literature to find how financial development attracts foreign direct investments for a sustainable real sector development of a country. The review is not limited to any time or database, or journal category. The review finds that the development of a country's financial sector is one of the most important attractors of FDIs. Theoretically, financial sector development works as a symbol of trust and goodness to the new potential investors and a good resource allocation channel for the existing investors. However, very few researchers found that FDIs are more prone to countries with a low developed financial system which may happen due to the presence of risk-taker foreign investors and risk-averse domestic entrepreneurs. This study presents a methodological gap as it was a review of literature and therefore lacks empiricism.

Mbratana et al. (2021) focused on assessing the direct causality between FDI and stock market development for 47 African countries. To that end, the frequency domain Granger causality test is used to establish short (temporary) and long run (permanent) causality. The main results document evidence of permanent and temporary causality in terms of bidirectional or unidirectional links, although there are several cases of no causality between FDI and stock market development indicators. The outcomes of this study invite policymakers to address issues regarding the relationship between foreign investments and the financial sector from a temporal or a permanent dynamic. The study presents a contextual gap as it was not country specific.

Anetor (2020) investigated the effect of foreign capital inflows and stock market development on Nigeria's economic growth, between the periods 1986- 2016. The review employed the impulse response function. The study found that shocks in FDI

and stock market development have had a positively significant influence on growth. However, portfolio investments and remittances had an insignificant impact on economic growth. The study advocated for the role of government in enacting sound fiscal policies and monetary policies that enhance the financial system along with the financial market. The study also recognizes the role of foreign capital flows in growth as they may also be involved in transmitting sophisticated technology and expertise management. The study did not review the effect of stock market development on FDI inflows hence a conceptual gap.

Musabeh and Zouaoui (2020) study looked at the factors that affected FDI inflows and the effects of the FDI policies implemented by the North African host nations of Egypt, Morocco, Algeria, Libya, and Tunisia between 1996 and 2013. The independent factors have been divided into three categories: economic, institutional, and political, with two different types of investment programs. In the model, the following independent variables were included: market size, investment freedom, investment agreement, trade openness, gross fixed capital creation, natural resources, infrastructure, exchange rate stability, inflation, corruption perception index, regulation, and political limitations index. The findings showed that the rise of FDI inflows was positively and statistically significantly correlated with trade openness. Nevertheless, there was no substantial or negative correlation between the variables of natural resources and market size and changes in FDI inflows in the North African nations. This study presents a methodological gap as it utilized OLS which has its shortcomings, a fixed or random effects model would have been more appropriate.

Liang, Lu and Huang (2020) investigates the relationship between stock market development and FDI inflows in emerging economies. The authors analyze a sample of

35 emerging economies over the period of 1997-2017. They examine the impact of various stock market development indicators, such as market capitalization, turnover ratio, and liquidity, on FDI inflows. The study provides empirical evidence on the importance of stock market development in attracting FDI to emerging economies. The study presents a contextual gap as it was not country specific.

Acheampong (2019) investigated the interaction effect of foreign capital inflows and stock market development on economic welfare in sub-Saharan Africa. The study used panel data from 23 sub-Saharan Africa countries, for the period 2000 to year 2013. Estimates in the study were based on the system-GMM estimator. Findings indicated in the first year of study, were that there is a positive effect on economic welfare of SSA by the interaction between foreign capital inflows and stock market development. However, subsequent year results had a negative impact. Further to this, a positive effect was resulted on economic welfare in the first year: due to the partial indirect effects of foreign capital inflows that were conditional on the level of stock market development. From a conceptual perspective, the study did not investigate the impact of stock market development on FDI inflows.

Do, Vo and Nguyen (2019) examines the relationship between stock market development, FDI, and economic growth in Southeast Asian countries. The authors employ a panel vector autoregression analysis using data from six Southeast Asian economies. They investigate the short-term and long-term dynamic interactions among stock market development, FDI inflows, and economic growth. The findings provide insights into the interplay between stock market development, FDI, and economic performance in the Southeast Asian context. The study presents a contextual gap as it was not country specific.

2.4.2 Local Studies

Gutola and Milos (2022) aims at evaluating the impact of foreign direct investment on the economic growth of Kenya focusing more on the GDP, balance of payment, and exports. The guiding question in this research paper is: What are the Impacts of Foreign Direct Investment on Kenyan economic growth? The research design used in this research paper is descriptive. The plan involved observing and describing the behavior of the FDIs in Kenya without influencing them in any way. From the research, it is evident that the impact of foreign direct investment has a positive impact on the growth of the Kenyan economy. The study reveals a conceptual gap as the effect of stock market development on FDI was not established.

Ogero, Obere and Odada (2021) aimed at establishing the link amongst FDI and chosen macroeconomic variables. The study employs the unit root test to determine the stationarity of individual variables. The causality of macroeconomic variables on FDI inflow is checked using granger causality test. Economic growth and exchange rates are significant in influencing the level of foreign direct investments and inflation and exchange rates are significant in influencing interest rates. Economic growth proxied by gross domestic product is positive and substantial determinant foreign direct investment inflows instantaneously. The study brings out a conceptual gap as it did not consider stock market development and its effect on foreign direct investments.

Ongeti and Karanja (2021) explores the determinants of FDI in Kenya using a gravity model approach. The authors examine various factors, including market size, economic growth, political stability, infrastructure development, and trade openness. They utilize panel data and econometric techniques to estimate the impact of these determinants on FDI inflows in Kenya. The study aims to provide empirical evidence and insights into

the key factors influencing FDI decisions and strategies in the Kenyan context. It contributes to the existing literature on FDI determinants and informs policymakers and investors about the potential drivers of FDI in Kenya. The study presents a conceptual gap as stock market development was not taken into account.

Odidi and Jagongo (2020) aim at establishing the moderating effect of inflation on the relationship between foreign direct investment, financial market development and economic growth in Kenya. Secondary data was collected for analysis from KNBS economic surveys, World Bank reports, central bank of Kenya's reports, economic journals and annual economic survey reports for a period of 36 years 1980 to 2016. Data analysis was carried out using descriptive and inferential statistics. The study findings revealed that the linear financial market development and foreign direct investment have a positive effect on economic growth in Kenya. However, the interaction term between stock market development and inflation rate has a negative on economic growth. The study presents a conceptual gap as the direct effect of stock market development on FDI inflows was not established.

Orwa, Ochieng and Mose (2020) examined the determinants of FDI inflows into Kenya by employing an empirical analysis. The authors collected data from various sources, including the World Bank, the Central Bank of Kenya, and the Kenya National Bureau of Statistics. They used econometric techniques, including panel data analysis, to investigate the factors influencing FDI inflows in Kenya. The study considered factors such as economic growth, market size, infrastructure, political stability, exchange rate volatility, and regulatory environment. It aimed to provide insights into the key determinants that attract foreign investors to Kenya and contribute to policy recommendations for promoting FDI inflows. The study revealed that economic growth

is a key determinant of FDI in Kenya. The study presents a conceptual gap as stock market development was not taken into account.

Ong'ondo (2018) carried out research to investigate the impact of foreign capital flows on Kenya's economic growth. The research utilized a quantitative research design and utilized secondary data over a 25 years' duration from 1993 to 2017. The study employed a time series model and also conducted univariate regression analysis. The study concluded that increases in FDI, FPI, external commercial borrowings and deposits from non-resident Kenyans all positively increased GDP. The research recognized the Governments' role in pursuing policies attracting and encouraging net increases in FCF into the country. A shortcoming of the study is that it did not methodologically review the potential effect of regime change due to the lengthy 25 years period of study. The period covered had instances of global financial crises and turmoil, and thus a need to evaluate the period as time lapses in the short term and long term.

Waweru and Ochieng (2017) examined the immediate and lagged effect of FDI flows on economic growth of Kenya. The study period was from 1984 to 2014, representing a 30-year period. The study applied a quantitative research design. This was an econometric model form also referred to as the Auto Regressive Distributed Lag (ARDL). The study results were that portfolio investments flows and foreign direct investments have had a negatively statistically insignificant effect on the GDP growth rate. Further, other investments flows have had a positive and statistically significant effect on economic growth. The study presents a conceptual gap as the effect of stock market development on FDI was not determined.

2.5 Conceptual Framework

Displayed in figure 2.1 is the projected link amongst the variables. The predictor variable was stock market development given by the ratio of stock market capitalization to GDP. It is theoretically hypothesized that an increment in stock market development translates to a rise in foreign direct investments. The control variables were inflation given by inflation rate, interest rate given by average lending rate and economic growth given by GDP growth rate. A rise in the inflation rate is expected to have a negative effect on FDI inflows as investors move to countries with relatively low inflation rates. High interest rate increases the cost of borrowing and this is hypothesized to reduce FDI inflows. Economic growth is expected to have a positive effect on FDI inflows as investors prefer countries with high economic growth as they are likely to provide better returns. The response variable was foreign direct investments given by log FDI inflows.

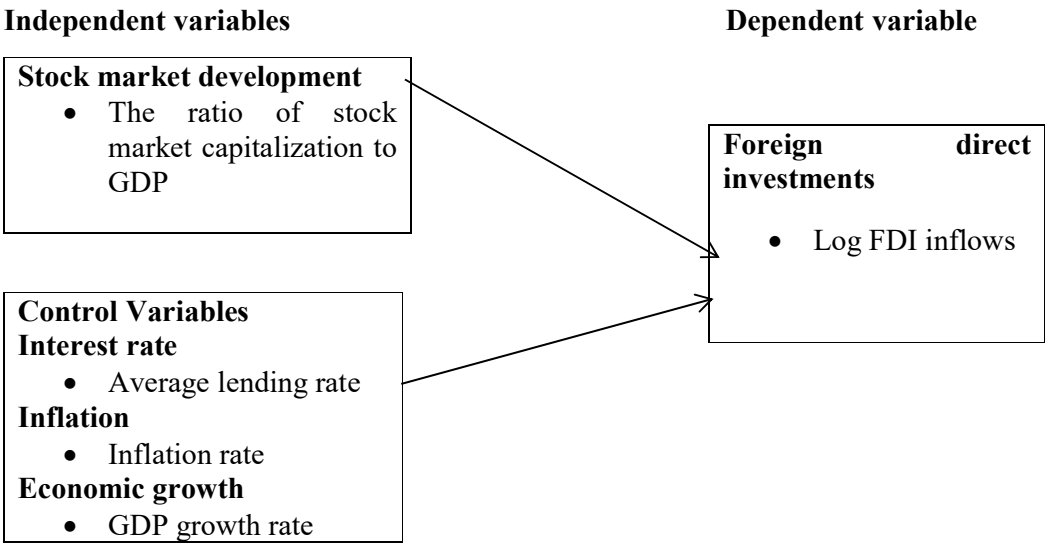

Figure 2.1: The Conceptual Model

Source: Researcher (2023)

2.5 Summary of the Literature Review and Research Gaps

The theoretical reviews depicted the projected link between stock market development and foreign direct investments. Various conclusions about the link amongst stock market development and FDI have been drawn from the previous studies. Conceptual, contextual, and methodological gaps can explain the disparities from the studies. Conceptually, most of the studies conducted locally have operationalized stock market development in diverse manners, with the mainstream selecting for a constrained definition. This presents conceptual gaps that the current study intended to fill.

Contextually, the available empirical studies were mostly conducted in different economies and their findings cannot be used to reflect Kenya due to differences in economic and social settings. There were also methodological gaps that arise from previous studies conducted locally; most of them were conducted for a short period of time (mostly five years) which might not be adequate to capture the effect of stock market development on financial performance. The current study considered a 10-year period with data collected quarterly. Additionally, the majority of the local studies have concentrated on other determinants of FDI without taking into account stock market development.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter lays out the methods that were utilized to achieve the study's goal, which was to ascertain how stock market development affects foreign direct investments in Kenya. The chapter particularly emphasizes on design, data collecting, and analysis.

3.2 Research Design

A descriptive research design was utilized for this research. Descriptive design was utilized as the study sought to establish the effect and interrelationship among the selected study variables. Descriptive design was also used to describe variables of the study namely stock market development as well as FDI with regards to their mean and standard deviations. This design was appropriate since it enabled the researcher to prudently compare the findings of the research and help in answering the questions of what, where as well as how.

3.3 Data Collection

This research utilized secondary data. Secondary data was gathered through Central Bank reports and KNBS reports between January 2013 and December 2022 quarterly and compiled on a data collection form. The 10-years quarterly period was considered long enough to provide adequate data to attain the research objectives. A secondary data collection sheet was used in compiling the secondary data collected. The specific data collected included; stock market capitalization, GDP, interest rate, inflation rate, GDP growth rate as well as FDI inflows.

3.4 Diagnostic Tests

Before moving on to equation estimation, diagnostic tests were done to make sure that there are no breaches of the traditional linear regression model assumptions. Parameter estimations are skewed as well as inefficient whenever the assumptions of a classical regression model are broken. The diagnostic tests conducted are as shown in Table 3.1.

Table 3.1: Diagnostic Tests

Test	Meaning	Statistical method	Interpretation	Diagnosis
Autocorrelation	Occurs when the residuals lack independence from each other.	Durbin-Watson statistic	When the test outcomes fall within critical values (1.5<d<2.5) there is no autocorrelation	Correlogram (Autocorrelation Function-ACF plot) Review model specifications
Multicollinearity	How closely related are the independent variables of the study	Variance Inflation Factors (VIF)	VIF less than 10 implies that there is no multicollinearity	Multicollinearity was adjusted using log transformation
Heteroscedasticity	When data lacks similar variance as assumed by standard linear regression model	Breusch Pagan Test Levene Test Normal P-P plots	Data split into high and low values. If data differ significantly, there is an element of heteroscedasticity	Non-linear transformation
Normality Test	When linear regression analysis for all variables is multivariate normal	Goodness of fit test Shapiro-Wilk test	Kolmogorov-Smirnov test prop.> 0.05. If the test is not substantial, the distribution is possibly normal.	Data that was not normally distributed was adjusted for using log transformation and non-linear log transformation.
Stationarity	a unit-root test to establish if the data was stationary	Jarque-Bera unit root test	A p value less than 0.05 implies that the data is stationary	Robust standard errors were used where data failed the test.

3.5 Data Analysis

Statistical Package for Social Sciences (SPSS) software was applied in analyzing data. Tables and graphs presented the conclusions quantitatively. Measures of central tendency and dispersion were calculated using descriptive statistics, and standard deviation were provided for each variable. Correlation and regression were used in inferential statistics. Regression was used to identify the causes and effects of the variables, while correlation was used to assess the strength of the relationship between the research variables. A multivariate regression was used to identify the relationship between the dependent and independent variables linearly.

3.5.1 Analytical Model

The formula below was used:

$$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = FDI given by natural log of FDI inflows on a quarterly basis

β_0 =y intercept of the regression equation.

β_1, β_2, β_3, β_4 =are the regression coefficients

X_1 = Stock market development given by the ratio of stock market capitalization to GDP per quarter

X_2 = Interest rate as measured by the quarterly average lending rate

X_3 = Inflation as measured by the quarterly inflation rate

X_4 = Economic growth as given by quarterly GDP growth rate

ε =error term

3.5.2 Tests of Significance

Parametric tests determined the general model and variable's significance. The F-test determined the model's relevance and this was achieved using ANOVA whereas a t-test determined the relevance of every variable.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND FINDINGS

4.1 Introduction

This chapter primarily presents the analysis of the data collected, the results and the discussion of findings where the current study findings are related with previous studies. Specifically, the chapter covers the descriptive analysis, diagnostic tests, correlation, and regression analysis conducted to achieve the objective of this research study.

4.2 Descriptive Analysis

Table 4.1 contains summary statistics for the study variables, which are essential for understanding the distribution and characteristics of the data. The data was collected for a 10-year period (January 2013 to December 2022).

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
FDI	40	14.4	16.0	15.279	.4844
Stock market capitalization	40	21.0	38.3	27.630	5.6615
Interest rate	40	5.8	18.0	9.694	2.8334
Inflation rate	40	4.0	16.8	8.074	3.6064
Economic growth	40	.05	.12	.096	.0221
Valid N (listwise)	40				

Source: Research Findings (2023)

Foreign Direct Investment, has an average of 15.279, with a relatively low standard deviation of 0.4844, indicating a relatively stable and consistent FDI inflow over the ten-year period. Stock market capitalization, on the other hand, shows a wider range of values, with a mean of 27.630 and a higher standard deviation of 5.6615, suggesting

greater variability in stock market capitalization. Interest rates, with an average of 9.694 and a standard deviation of 2.8334, display moderate variability.

Inflation rates show an average of 8.074 and a standard deviation of 3.6064, indicating some fluctuation. Economic growth, with a mean of 0.096 and a low standard deviation of 0.0221, appears to be relatively stable. Importantly, there are no missing data points, as indicated by the Valid N (Listwise) value of 40, ensuring that all 40 observations are complete and available for analysis. These summary statistics provide a foundational understanding of the distribution and characteristics of the variables, setting the stage for further analysis to investigate the relationship between stock market development and FDI inflows in Kenya while controlling for interest rates, inflation, and economic growth.

4.3 Diagnostic Tests

Before moving on to equation estimation, diagnostic tests were done to make sure that there are no breaches of the traditional linear regression model assumptions. Parameter estimations are skewed as well as inefficient whenever the assumptions of a classical regression model are broken. The diagnostic tests conducted are discussed in this section.

4.3.1 Normality Test

A number of techniques may be used to determine if data is normal. The Shapiro-Wilk test, Kolmogorov-Smirnov test, skewness, kurtosis, histogram, P-P plot, box plot, Q-Q plot, mean, and standard deviation are the techniques that are most frequently employed. The Kolmogorov-Smirnov test and the Shapiro-Wilk test are the two normality tests that are most often employed. The Kolmogorov-Smirnov test is preferable for sample sizes more than 50 samples, but the Shapiro-Wilk test is better

for smaller sample sizes (n 50 samples). As a result, the study's numerical approach of establishing normalcy was the Shapiro-Wilk test. The null hypothesis states that the data are drawn from a population that is normally distributed for both of the aforementioned tests. When the P-value is less than 0.05, the null hypothesis is disproved and it is declared that the data are not normally distributed.

Table 4.2: Test for Normality

	Shapiro-Wilk	P-value
FDI	0.918	0.202
Stock market development	0.881	0.194
Interest rate	0.874	0.191
Inflation rate	0.892	0.201
Economic growth	0.923	0.220

Source: Research Findings (2023)

From Table 4.11 results, all the study variables have a p value more than 0.05 and therefore were normally distributed.

4.3.2 Multicollinearity Test

When there is a substantial correlation between the independent variables in a regression model, multicollinearity arises. The VIF and tolerance indices were used to evaluate multicollinearity. Multicollinearity is present and the assumption is violated when the VIF value is more than 10 and the tolerance score is lower than 0.2. The VIF values are less than 10, which indicates that multicollinearity is not an issue.

Table 4.3: Multicollinearity

Variable	Tolerance	VIF
Stock market development	0.601	1.664
Interest rate	0.598	1.672
Inflation rate	0.599	1.663
Economic growth	0.621	1.610

Source: Research Findings (2023)

4.3.3 Heteroskedasticity Test

When employing the Ordinary Least Squares (OLS) method(s), a linear regression model's residual variance must be constant and unrelated to the independent variable. Contrary to heteroskedasticity, which refers to non-constant variance, homoscedasticity relates to constant variance. The Breusch-Pagan/Cook-Weisberg test was employed in the study to determine if the variance was heteroskedastic. The homoscedasticity of the data is implied by the null hypothesis, which also entails constant variance. Table 4.4's results are displayed.

Table 4.4: Heteroscedasticity Results

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
chi2(1)	=	0.8427
Prob > chi2	=	0.6313

Source: Research Findings (2023)

Table 4.4 demonstrates that the null hypothesis was not disproved since the p-value was statistically significant ($p>0.05$) at 0.6313. The dataset therefore exhibited homoskedastic variances. Breusch-Pagan's test for homogeneity of variances P-values were larger than 0.05. Therefore, the test supported homogeneity of variance and the regression analysis may be performed using the data.

4.3.4 Autocorrelation Test

Serial correlation, often referred to as autocorrelation, causes the standard errors of coefficients to seem to be lower than in models using linear panel data, leading to greater R-squared and incorrect hypothesis testing. The Durbin-Watson test was used to examine autocorrelation. If the Durbin-Watson test equals 2 (i.e., between 1 and 3), the error terms of the regression variables are uncorrelated. The better the value, the closer it is to 2. The outcomes are displayed in Table 4.5.

Table 4.5: Test of Autocorrelation

Durbin Watson Statistic
2.132

Source: Research Findings (2023)

The Durbin-Watson statistic was 2.132, according to the findings in Table 4.5. The fact that the Durbin-Watson statistic was close to 2 demonstrates that the error terms of regression variables are uncorrelated.

4.3.5 Stationarity Test

The research variables were subjected to a unit-root test to establish if the data was stationary. The unit root test was the ADF test. With a standard statistical significance level of 5%, the test was compared to their corresponding p-values. In this test, the null hypothesis states that every variable has a unit root, and the alternative hypothesis is that the variables are stationary. Findings depicted in Table 4.6.

Table 4.6: Stationarity Test

ADF test Variable	Statistic	p value
FDI	7.2126	0.0000
Stock market development	9.2031	0.0000
Interest rate	8.8718	0.0000
Inflation rate	7.8447	0.0000
Economic growth	7.8132	0.0000

Source: Research Findings (2023)

As demonstrated in Table 4.6, this test concludes that the data is stationary at a 5% level of statistical significance since the p-values all fall below 0.05.

4.4 Correlation Analysis

Table 4.7 depicts the relationships between the study variables: Foreign direct investment, stock market development, interest rate, inflation rate, and economic growth.

Table 4.7: Correlation Analysis

		FDI	Stock market development	Interest rate	Inflation rate	Economic growth
FDI	Pearson Correlation	1				
	Sig. (2-tailed)					
Stock market development	Pearson Correlation	.376**	1			
	Sig. (2-tailed)	.017				
Interest rate	Pearson Correlation	.057	.134	1		
	Sig. (2-tailed)	.725	.237			
Inflation rate	Pearson Correlation	-.102	.134	-.221*	1	
	Sig. (2-tailed)	.531	.238	.049		
Economic growth	Pearson Correlation	.456**	.210	.036	-.136	1
	Sig. (2-tailed)	.003	.061	.748	.230	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
c. Listwise N=40

Source: Research Findings (2023)

The study reveals that there is a statistically significant positive correlation between FDI and stock market development, with a Pearson Correlation coefficient of 0.376, significant at the 0.05 level (two-tailed). This suggests that as the stock market in Kenya develops, there tends to be an increase in foreign direct investment inflows. This positive correlation implies that investors may be attracted to invest in Kenya's stock market when it is performing well, which, in turn, can lead to increased FDI.

FDI also exhibits a strong positive correlation of 0.456 with Economic Growth, which is significant at the 0.01 level (two-tailed). This result suggests that as the Kenyan economy grows, it tends to attract more foreign direct investment. A growing economy may offer better business prospects and investment opportunities, making it an attractive destination for foreign investors. However, there are no significant correlations between FDI and interest rate or inflation rate. The correlation coefficients for both of these variables are very low (0.057 and -0.102, respectively) and not statistically significant. This implies that changes in interest rates or inflation rates in Kenya do not appear to have a strong linear relationship with FDI inflows.

4.5 Regression Analysis

Table 4.8 to 4.10 presents the results of a regression model, which aims to understand the relationship between the dependent variable (FDI) and several predictor variables: economic growth, inflation rate, interest rate, and stock market capitalization.

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556[a]	.309	.230	.4250

a. Predictors: (Constant), Economic growth, Inflation rate, Interest rate, Stock market capitalization

Source: Research Findings (2023)

The R Square value (0.309) indicates the proportion of the variance in the dependent variable that can be explained by the predictor variables. In this model, about 30.9% of the variance in FDI is accounted for by the four predictors.

The ANOVA table indicates that the regression model, which includes the four predictors, is statistically significant in explaining some of the variance in FDI. The F-

statistic suggests that the model's overall fit is better than what would be expected by random chance alone.

Table 4.9: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.831	4	.708	3.918	.010[b]
	Residual	6.322	35	.181		
	Total	9.153	39			

a. Dependent Variable: FDI
b. Predictors: (Constant), Economic growth, Inflation rate, Interest rate, Stock market capitalization

Source: Research Findings (2023)

In the regression model predicting FDI, several variables' coefficients and p-values are examined to determine their significance as predictors. Table 4.10 summarizes the findings.

Table 4.10: Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.318	.060		3.304	.000
	Stock market development	.336	.086	.406	3.912	.000
	Interest rate	.005	.004	.001	.041	.967
	Inflation rate	.007	.001	.009	.083	.934
	Economic growth	.278	.001	.277	2.696	.009

a. Dependent Variable: FDI

Source: Research Findings (2023)

The constant (intercept) has a coefficient of 0.318 and a very low p-value of 0.000, indicating its significance in the model. Among the predictor variables, Stock market development stands out as a highly significant predictor with a coefficient of 0.336 and a very low p-value of 0.000, implying that as stock market development increases, FDI is positively influenced. On the other hand, interest rate, inflation rate, and economic

growth have coefficients of 0.005, 0.007, and 0.278, respectively, but their p-values are 0.967, 0.934, and 0.009. Among these, only Economic growth is statistically significant, indicating that as economic growth increases, FDI tends to rise.

The following regression was estimated:

$Y = 0.318 + 0.336X_1 + 0.278X_2$

Where,

Y = FDI inflows

X_1= Stock market development

X_2= Economic growth

Stock market development and Economic growth are the significant predictors of FDI in this model, as evidenced by their low p-values and positive coefficients, while Interest rate and Inflation rate do not appear to significantly influence FDI.

4.6 Discussion of Research Findings

This research aimed to assess the way in which the predictor variables impacted the FDI inflows in the Kenyan context. Independent variables included stock market development, interest rate, inflation together with economic growth. The natural logarithm of quarterly FDI inflows measured FDI inflows. Correlation as well as regression analysis were utilized to show the connection linking the independent to dependent variables.

The descriptive results provide valuable insights into the characteristics of the study variables over a ten-year period from 2013 to 2022 in Kenya. Notably, Foreign Direct

Investment (FDI) exhibited an average value of 15.279 with relatively low variability (standard deviation of 0.4844), suggesting consistent FDI inflows during this period. Stock market capitalization, in contrast, showed a wider range of values with an average of 27.630 and a higher standard deviation of 5.6615, indicating greater variability in the stock market. Interest rates had an average of 9.694, while inflation rates averaged 8.074, with moderate variability in both cases. Economic growth was relatively stable with an average of 0.096 and a low standard deviation of 0.0221.

The correlational results highlight the relationships between the study variables. Notably, there was a statistically significant positive correlation (at the 0.05 level) between FDI and stock market development, suggesting that as the stock market in Kenya developed, it tended to attract more foreign direct investment. Furthermore, a strong positive correlation (at the 0.01 level) was found between FDI and economic growth, indicating that as the Kenyan economy grew, it tended to attract more FDI. However, there were no significant correlations between FDI and interest rate or inflation rate, suggesting that changes in these economic indicators did not have a strong linear relationship with FDI inflows.

The regression results shed light on the predictive power of the study variables with respect to FDI. Among the individual predictor variables, stock market development and economic growth emerged as significant predictors of FDI. Stock market development had a positive coefficient (0.336) and a low p-value ($p = 0.000$), indicating that as stock market development increased, FDI also increased. Economic growth exhibited a positive coefficient (0.278) and a significant p-value ($p = 0.009$), suggesting that as the Kenyan economy grew, it attracted more FDI. In contrast, interest rate and inflation rate did not significantly influence FDI. These regression results underscore

the importance of stock market development and economic growth as key drivers of foreign direct investment in Kenya.

The findings of this study, which explore the effect of stock market development on FDI inflows in Kenya, align with several aspects of previous research in the field of foreign direct investment and financial development. Islam et al. (2021) emphasized the importance of a country's financial sector in attracting FDIs, and the current study's results corroborate this view. The significant positive correlation between stock market development and FDI inflows in Kenya suggests that a well-developed stock market can act as a catalyst for attracting foreign investors. This finding aligns with the notion that a robust financial sector can instill trust and serve as an efficient resource allocation channel, making the country more appealing to potential investors.

Mbratana et al. (2021) investigated causality between FDI and stock market development in African countries. While their study focused on causality, this study complements their findings by demonstrating a significant positive correlation between these variables in the Kenyan context. This similarity suggests that the relationship between FDI and stock market development might be applicable to a broader African context.

Anetor (2020) examined the impact of foreign capital inflows and stock market development on Nigeria's economic growth. Although this study focuses on FDI inflows rather than economic growth, it corroborates the significance of FDI as a positive influencer, as indicated in Anetor's findings. Both studies highlight the potential benefits of sound fiscal and monetary policies in enhancing the financial system and financial markets, which may contribute to attracting FDI.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The main objective of this study was to assess the effect of stock market development on FDI inflows in Kenya. This chapter provides a summary of findings, conclusions, and limitations of this study. The chapter also outlines the recommendations for policy and practice and suggests areas for further studies.

5.2 Summary

The research assessed how stock market development influenced the FDI inflows in Kenya. Stock market development, interest rates, inflation, as well as economic growth were adopted to be the predictor variables of the research. The study used descriptive design to do analysis as well as data collection. Secondary data was obtained from CBK as well as KNBS and analyzed using SPSS version 27 program. The study collected quarterly data for 10 years.

The correlation results revealed that there was a statistically significant positive correlation (at the 0.05 level) between FDI and stock market development, suggesting that as the stock market in Kenya developed, it tended to attract more foreign direct investment. Furthermore, a strong positive correlation (at the 0.01 level) was found between FDI and economic growth, indicating that as the Kenyan economy grew, it tended to attract more FDI. However, there were no significant correlations between FDI and interest rate or inflation rate, suggesting that changes in these economic indicators did not have a strong linear relationship with FDI inflows.

The regression results revealed that stock market development and economic growth are significant predictors of FDI. Stock market development had a positive coefficient (0.336) and a low p-value ($p = 0.000$), indicating that as stock market development increased, FDI also increased. Economic growth exhibited a positive coefficient (0.278) and a significant p-value ($p = 0.009$), suggesting that as the Kenyan economy grew, it attracted more FDI. In contrast, interest rate and inflation rate did not significantly influence FDI, as their coefficients were close to zero, and their p-values were not significant. These regression results underscore the importance of stock market development and economic growth as key drivers of foreign direct investment in Kenya.

5.3 Conclusion of the Study

The study found a significant positive correlation between stock market development and FDI inflows in Kenya. This suggests that as the stock market in Kenya developed, it tended to attract more foreign direct investment. This outcome aligns with the notion that a well-developed stock market can serve as a magnet for foreign investors, indicating that they view it as a reliable channel for investment. As a result, it can be inferred that stock market development plays a pivotal role in shaping the FDI landscape in Kenya.

The study identified economic growth as another significant predictor of FDI inflows. As Kenya's economy grew, it tended to attract more foreign direct investment. This finding underscores the importance of a robust and expanding economy in attracting foreign investors, who are likely drawn to countries with a promising economic outlook.Conversely, the study did not find significant correlations between FDI inflows and interest rates or inflation rates in Kenya. These economic indicators, while

important in their own right, did not exhibit a strong linear relationship with FDI inflows during the study period.

5.4 Recommendations of the Study

Given the significant positive correlation between stock market development and FDI inflows, Kenyan policymakers should prioritize initiatives that foster the growth and development of the stock market. This includes promoting transparency, investor protection, and regulatory frameworks that attract both domestic and foreign investors. Expanding the range of financial products and services offered in the stock market can also enhance its attractiveness to a broader investor base.

The study highlighted the importance of economic growth in attracting FDI. Therefore, Kenyan authorities should implement policies aimed at promoting sustainable economic growth. This could involve investments in infrastructure, education, and technology, as well as creating a business-friendly environment that encourages entrepreneurship and innovation. Ensuring macroeconomic stability, such as managing inflation and interest rates, is also essential to provide a favorable backdrop for economic expansion.

While stock market development and economic growth are crucial, it's important not to rely solely on these factors to attract FDI. Kenya should diversify its investment promotion efforts by actively marketing itself as an attractive destination for foreign investors. This could involve targeted marketing campaigns, investment incentives, and building strategic partnerships with foreign governments and international organizations to facilitate investment.

5.5 Limitations of the Study

The study's temporal scope covers a ten-year period from 2013 to 2022. While this provides insights into a significant timeframe, it may not capture longer-term trends or structural changes in the Kenyan economy and financial markets. Economic and financial dynamics can evolve over more extended periods, and FDI decisions often consider long-term factors. Therefore, the findings might not fully represent the dynamics beyond this specific timeframe.

The study's focus on quantitative analysis limits its ability to capture qualitative aspects of FDI attraction. Factors such as political stability, legal frameworks, and the ease of doing business can significantly impact FDI but may not be fully addressed through quantitative data alone. A more comprehensive approach, including qualitative research and stakeholder interviews, could provide a more holistic understanding of the factors influencing FDI in Kenya.

The study does not delve into the quality of FDI or its sectoral distribution. Not all FDI is equal, and its impact on the host country can vary depending on factors such as the sector it targets or the extent to which it promotes technology transfer and job creation. Lastly, the study does not consider external global factors that might influence FDI inflows into Kenya. Global economic conditions, geopolitical events, and international trade policies can all have a significant impact on FDI patterns.

5.6 Suggestions for Further Research

Future research could extend the temporal scope of the study to conduct a more extended analysis of FDI trends in Kenya over several decades. Long-term data analysis would enable researchers to capture structural changes in the economy, policy shifts, and global economic dynamics that might influence FDI patterns. Understanding how

FDI trends evolve over extended periods can provide valuable insights for policymakers and investors.

While this study focused primarily on quantitative analysis, there is room for qualitative research to explore the qualitative aspects of FDI in Kenya. Qualitative methods such as case studies, interviews with foreign investors, and in-depth analysis of specific FDI projects can provide insights into the motivations, challenges, and impact of FDI beyond what quantitative data can reveal. This qualitative approach could help identify best practices for FDI attraction and sustainable development.

Future research could delve into sector-specific FDI dynamics within Kenya. Different sectors may experience varying levels of FDI attraction and impact on the economy. An in-depth analysis of sectors such as manufacturing, services, agriculture, and technology could provide a more nuanced understanding of how FDI contributes to specific economic sectors and helps diversify the economy.

REFERENCES

Acheampong, K. (2019). The interaction effect of foreign capital inflows and stock market development on economic welfare in sub-Saharan Africa. *Financial Innovation*, *5*(1), 5-17.

Ali, S. (2014). Foreign capital flows and economic growth in Pakistan: an empirical analysis. *World Applied Sciences Journal 29 (2),* 193-201.

Anetor, F. O. (2020). Foreign Capital Inflows, Stock market development and Growth in Nigeria: A Structural Var Approach. *The Journal of Developing Areas*, *54*(3), 12-19.

Appiah, M., Gyamfi, B. A., Adebayo, T. S., & Bekun, F. V. (2022). Do stock market development, foreign direct investment, and economic growth enhance industrial development? Fresh evidence from Sub-Sahara African countries. *Portuguese Economic Journal*, 1-25.

Buckley, P. J & Casson, M. C. (1976). The internalization theory of the multinational enterprise: A review of the progress of a research agenda after 30 years. *Journal of International Business Studies* 40 (9), 1563-1580

Casson, M. (1983). Economic analysis of international supply chains: an internalization perspective. *Journal of Supply Chain Management*, 49(2), 8-13

Chorn, J., Seik, W. (2017). The impact of foreign capital inflow on economic growth in developing countries. *Journal of Finance and Economics, 5(3)*: 128-35.

Devereux, M. P., Maffini, G., & Xing, J. (2015). *Corporate tax incentives and FDI: empirical evidence from UK tax returns* (No. 1507).

Do, T. T., Vo, D. H., & Nguyen, H. T. H. (2019). Stock Market Development, Foreign Direct Investment, and Economic Growth in Southeast Asia: A Panel VAR Analysis. *Journal of Asian Finance, Economics and Business, 6*(2), 73-82.

Dragoi, D. (2019). Harrod–Domar economic growth model in classical and neoclassical theory name and surname. *Annals-Economy Series*, *6*, 281-287.

Dunning, J. H. (1979). Explaining changing patterns of international production: In defence of the eclectic theory. *Oxford Bulletin of Economics and Statistics, 41(*2), 269-295.

Fama, E. F. (1998). Stock returns, real activity, inflation, and money. *The American economic review*, *71*(4), 545-565.

FinAccess (2021). *Stock market development in Kenya*. International Monetary Fund

Gillen, D., & Lall, A. (2004). Competitive advantage of low-cost carriers: some implications for airports. *Journal of Air Transport Management*, *10*(1), 41-50.

Gitonga, F. K. (2017). *The relationship between tax incentives and foreign direct investment inflows of listed multinational corporations in Kenya* (Doctoral dissertation, University of Nairobi).

Goldin, I & Reinert, K. (2007). *Globalization for Development: Trade, Finance, Aid, Migration and Policy.* Washington DC: The World Bank Press.

Gutola, B. R., & Milos, M. (2022). The Impact of Foreign Direct Investment on the Economic Growth of Developing Countries. Giving Example of Kenya. In *Developments in Information & Knowledge Management for Business Applications* (pp. 379-401). Springer, Cham.

Hajilee, M., & Al Nasser, O. M. (2015). The relationship between financial market development and foreign direct investment in Latin American countries. *The Journal of Developing Areas, 49*(2), 227-245.

Hanif, A., & Shariff, S. S. M. (2016). *Relationship Between Foreign Direct Investment and Stock market development.* Paper presented at the Proceedings of the 1st AAGBS International Conference on Business Management

Hymer, S. H. (1960). *The international operations of national firms, a study of direct foreign investment* (Doctoral dissertation, Massachusetts Institute of Technology).

Islam, M. A., Hossain, M. N., Khan, M. A., Hasan, M. R., & Hassan, M. R. (2021). Stock market development and foreign direct investment nexus: A systematic review of literature. *International Journal of Research in Business and Social Science (2147-4478)*, *10*(4), 226-238.

Islam, M. A., Liu, H., Khan, M. A., Islam, M. T., & Sultanuzzaman, M. R. (2021). Does foreign direct investment deepen the financial system in Southeast Asian economies? *Journal of Multinational Financial Management*, *61*, 100682.

Jiang, C., & Ma, X. (2019). The Impact of Stock Market Development on Carbon Emissions: A Global Perspective. *Sustainability, 11*(19), 5241

Kinyanjui, M. W., Muturi, W., & Njeru, A. (2018). Original Paper Interest Rates and Growth of Private Domestic Investment in Kenya; Vector Autoregressive Econometric Approach.

Liang, Q., Lu, Y., & Huang, Y. (2020). Stock Market Development and Foreign Direct Investment Inflows: Evidence from Emerging Economies. *Emerging Markets Finance and Trade, 56*(7), 1503-1521.

Lozi, B. M., & Shakatreh, M. (2019). The Impact of International Capital Flows on Jordan Economic Growth. *International Journal of Economics and Financial Research*, *5*(9), 214-220.

Mahmood, H., Furqan, M., & Bagais, O. A. (2018). Environmental Accounting of Stock market development and Foreign Investment: Spatial Analyses of East Asia. *Sustainability, 11*(1), 13

Mbratana, T., Fotié, A. K., & Amba, M. C. O. (2021). Foreign direct investment and stock market development in Africa: A causality assessment in the frequency domain. *The Journal of International Trade & Economic Development*, *30*(5), 685-706.

Mowlaei, M., (2018). The impact of foreign capital inflows on economic growth on selected African countries. *African Journal of Economic and Management Studies, 9*(4): 523-536.

Musabeh, A., & Zouaoui, M. (2020). Policies and Variables affecting FDI: A Panel Data Analysis of North African Countries. *Journal of Economic Policy Researches*, *7*(1), 1-20.

Nkoa, B. E. O. (2018). Determinants of foreign direct investment in Africa: An analysis of the impact of financial development. *Economics Bulletin,* 38(1), 221-233

Odidi, M. V., & Jagongo, A. (2020). The moderating effect of inflation on the relationship between foreign direct investment, financial market development and economic growth in Kenya. *International Academic Journal of Economics and Finance*, *3*(6), 168-180.

Ogero, T. M., Obere, J. A., & Odada, J. E. (2021). Relationship Between Foreign Direct Investment inflows and Selected Macroeconomic Variables in Kenya. *International Journal of Social Sciences Information and Technology. Retrieved from http://www. ijssit. com*.

Ongeti, K. N., & Karanja, P. W. (2021). Determinants of Foreign Direct Investment in Kenya: A Gravity Model Approach. *Journal of African Business, 22(*2), 259-276.

Ong'ondo, W. (2018). Foreign capital flows and economic growth of Kenya. *International Journal of Finance and Accounting, 3(2),* 40-56.

Onyinye, I., Orji, A., Jonathan, E., & Emmanuel, O. (2018). Disaggregated foreign capital inflows and economic growth in a developing economy: Empirical evidence from Nigeria. *Journal of Empirical Studies*, *5*(1), 1-11.

Orwa, G., Ochieng, J., & Mose, S. (2020). Determinants of Foreign Direct Investment Inflows into Kenya: An Empirical Analysis. *International Journal of Economics, Commerce, and Management, 8*(9), 22-35.

Pei C., & Zheng W. (2011). National Specific Advantages: A Supplementary Interpretation of International Investment Theory. *Economic Research*, 11, 102-109

Phimmarong and Kinnalone (2017). The impact of foreign capital inflow on economic growth in 6 Asian countries. *Ritsumeikan International Research, 30*(1): 141-81.

Rahman, N. H. A. & Mustafa, A. R. (2015). How does stock market development affect economic growth? A systematic review. *Cogent Business and Management, 6*(1), 12-19.

Siddikee, M. N., & Rahman, M. M. (2021). Foreign direct investment, stock market development, and economic growth nexus in Bangladesh. *The American Economist*, *66*(2), 265-280.

UNCTAD. (2018). *World Investment Report 2018*. Retrieved from: www.unctad.org/wir

Waweru, G., & Ochieng, D. E. (2017). Effects of capital flows on economic growth in Kenya. *African Development Finance Journal (ADFJ)*, *1*(2).1-17

Wekesa, C., Wawire, N., & Kosimbei, G. (2016). Effects of Infrastructure Development on Foreign Direct Investment in Kenya. *Journal of Infrastructure Development, 8(*2), 1–18.

World Bank. (2019). *World Development Indicators*. Washington, D.C: World Bank.

World Bank (2021). *The Findex Global Database 2021* [Online]. Washington D.C: World Bank. Available from: datatopics.worldbank.org/financial deepening/ [Accessed 20 August 2022].

Xgedu. (2013). *Guidelines for Basic Review of International Business Professional*. Beijing: Sinopec Press.

APPENDICES

Appendix I: Research Data

Year	Quarter	FDI	Stock market capitalization	Interest rate	Inflation rate	Economic growth
2013	1	14.40	20.98	6.92	16.83	0.06
	2	14.45	20.98	6.75	15.92	0.05
	3	14.51	20.98	6.00	13.39	0.05
	4	14.55	26.68	6.00	10.30	0.06
2014	1	14.58	26.68	5.83	7.85	0.11
	2	14.62	26.68	6.08	5.87	0.11
	3	14.68	26.68	6.50	4.71	0.12
	4	14.69	36.16	15.17	4.03	0.12
2015	1	14.77	36.16	18.00	4.16	0.11
	2	14.84	36.16	18.00	6.01	0.11
	3	14.89	36.16	15.33	9.02	0.11
	4	14.93	38.31	11.67	12.78	0.12
2016	1	14.99	38.31	9.50	15.83	0.11
	2	15.06	38.31	8.83	16.29	0.11
	3	15.11	38.31	8.50	14.30	0.11
	4	15.14	29.77	8.50	10.70	0.11
2017	1	15.19	29.77	8.50	7.26	0.11
	2	15.27	29.77	8.50	5.04	0.11
	3	15.31	29.77	8.50	4.56	0.11
	4	15.33	25.44	8.50	5.39	0.11
2018	1	15.38	25.44	8.50	6.20	0.11

Year	Quarter	FDI	Stock market capitalization	Interest rate	Inflation rate	Economic growth
	2	15.43	25.44	9.00	6.83	0.11
	3	15.45	25.44	11.50	7.24	0.11
	4	15.47	29.73	11.50	6.98	0.10
2019	1	15.50	29.73	11.50	6.67	0.10
	2	15.55	29.73	10.83	6.66	0.10
	3	15.61	29.73	10.50	6.39	0.10
	4	15.61	22.51	10.50	6.44	0.10
2020	1	15.65	22.51	10.00	6.84	0.10
	2	15.68	22.51	10.00	6.59	0.10
	3	15.72	22.51	10.00	6.47	0.10
	4	15.75	24.81	10.00	6.40	0.09
2021	1	15.79	24.81	9.50	6.48	0.10
	2	15.82	24.81	9.00	7.72	0.10
	3	15.85	24.81	9.00	8.32	0.10
	4	15.89	21.81	9.00	8.15	0.09
2022	1	15.82	21.81	9.00	7.36	0.06
	2	15.93	21.81	9.00	5.68	0.05
	3	15.94	21.81	9.00	4.70	0.05
	4	15.98	21.43	8.83	4.60	0.06